

CLEAN VERSION OF THE CLAIMS

Sub 55

1. (Thrice Amended) A process for drying wet F32, which comprises placing a stream of the said F32 in continuous contact with a feed stock of a composition comprising a molecular sieve selected from a 3A, 4A or 5A type sieve, at a temperature of between 5 and 78°C, and at a pressure of between 0.6 and 25 atm,

wherein the sieve feed stock is regenerated by the process which consists in passing a stream of an inert gas over the feed stock, at a pressure at about atmospheric pressure:

(i) at a temperature between 70°C and 170°C, for the time required to remove at least 80%, of the initial amount of F32 absorbed in the feed stock, and then

(ii) at another temperature between 180°C and 300°C, for the time required to remove at least 90%, of the initial amount of water absorbed in the feed stock.

2. (Twice Amended) The process according to claim 1, wherein the stream of F32 to be dried is a stream of gas, and the pressure is between 0.6 and 10 atm.

3. (Twice Amended) The process according to claim 1, wherein the stream of F32 comprises a water content of less than 10,000 ppm.

4. (Twice Amended) The process according to claim 1, wherein the wet F32 is placed in contact with the sieve feed stock in a column located downstream of a plant for manufacturing F32.

5. (Twice Amended) The process according to claim 1, wherein the molecular sieve used is a 3A type sieve.

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6. (Twice Amended) The process according to claim 1, wherein the sieve feed stock is regenerated by the process which consists in heating the feed stock to a temperature between 120°C and 300°C, at an absolute pressure of less than 100mm Hg.

7. (Canceled)

8. (Thrice Amended) The process according to claim 1, wherein step (i) is carried out by first working:

(i1) at first temperature between 70°C and 130°C, for the time required to remove at least 60% of the initial amount of F32 absorbed, and then

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(i2) at a second temperature between 130°C and 170°C, for the time required to remove at least 80%, of the initial amount of F32 absorbed.

9. (Twice Amended) The process according to claim 20, wherein the regeneration treatment for the sieve feed stock is carried out in the same column that is used to contact the wet F32.

10. (Twice Amended) The process according to claim 9, wherein said process is carried out in at least two columns in parallel, one running in a phase for drying wet F32, and another running in a phase for regenerating a saturated molecular sieve feed stock.

Sub D7
11. (Amended) The process according to claim 1, wherein the temperature is room temperature.

12. (Amended) The process according to claim 1, wherein the pressure is between 0.8 and 17 atm.

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13. (Amended) The process according to claim 2, wherein the pressure is between 0.8 and 5 atm.

14. (Amended) The process according to claim 3, wherein the water content is less than 6000 ppm.

15. (Amended) The process according to claim 6, wherein the temperature is between 150°C and 250°C and the pressure is less than 80 mm Hg.

Sub D7
16. (Twice Amended) The process according to claim 1, wherein the temperature (i) is between 80°C and 165°C and at least 90% of the initial amount of F32 absorbed in the feed stock is removed.

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17. (Twice Amended) The process according to claim 1, wherein the temperature (ii) is between 190°C and 250°C and at least 95% of the initial amount of water absorbed in the feed stock is removed.

18. (Amended) The process according to claim 8, wherein the temperature (i1) is between 100°C and 125°C and at least 70% of the initial amount of F32 absorbed is removed.

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19. (Amended) The process according to claim 8, wherein the temperature (i2) is between 145°C and 165°C and at least 90% of the initial amount of F32 absorbed is removed.

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20. (New) The process according to claim 4, wherein the sieve feed stock is regenerated by the process which consists in heating the feed stock to a temperature between 120°C and 300°C, at an absolute pressure of less than 100mm Hg.

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21. (Amended) A process for drying wet F32, which comprises placing a stream of the said F32, comprising a water content of less than 10,000 ppm, in continuous contact with a feed stock of a composition comprising a molecular sieve selected from a 3A, 4A or 5A type sieve, at a temperature of between 5 and 78°C, and at a pressure of between 0.6 and 25 atm,

wherein the sieve feed stock is regenerated by the process which consists in passing a stream of an inert gas over the feed stock, at a pressure at about atmospheric pressure:

(i) at a temperature between 70°C and 170°C, for the time required to remove at least 80%, of the initial amount of F32 absorbed in the feed stock, and then

(ii) at another temperature between 180°C and 300°C, for the time required to remove at least 90%, of the initial amount of water absorbed in the feed stock.

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22. (New) The process according to claim 1, wherein the inert gas is helium.

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